# McCORMACK DECLARATION EXHIBIT R

REPORT

ON

CRACKS AND DAMAGES

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97 Quentin Road Brooklyn, NY

R 41-647

March 30, 2007

Ainso & Associates, Inc. 61 Highbrook Avenue Pelham, N.Y. 914 738 6323 R41-647.

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# INTRODUCTION

This report is a follow up to the initial visual inspection report prepared by Mr. Wiktor Wasilewski, PE who issued his report of the premises on May 19, 2005. I visited the site on May 8, 2006, Dec. 27, 2006 and March 13, 2007. I was called to assess the structural damage that had been created due to the excavation and underpinning operations during the construction of a new structure on the adjacent lot along the east façade. During my initial visit, I installed two displacement gages on the basement floor in order to determine whether the building is still moving.

We prepared a layout of each floor where we indicated the approximate location of the cracks and documented our findings with photos. We could not see the completed underpinning beneath our footing because by this time the new wall had reached the first floor level and covered up the underpinned portion. However, photos of underpinning and the sandy areas with and without dry pack is documented in the earlier report by Mr. Wassilewski, PE. That report also shows serious undermining of the existing footing at the north wall.

I was able to inspect the basement, the public areas of the building, the laundry and one apartment on the second floor. The two apartments on the third floor and the second apartment on the second floor were not accessible during my visits.

In his initial report, Mr. Wasilewski made some recommendations for eliminating the flaws and redoing the dry packing of the underpinning and for repairing the cracking of the walls. We do not know if the dry packing was redone and now that it is covered up, it can not be checked. If the cracks were repaired as recommended, then they have opened up again.

### OBSERVATIONS

We found a serious crack running almost parallel the east wall where the underpinning operations were taking place. See S-1 and the photos of the basement area...

In the boiler room we found a hole in the floor slab and noticed that a major hollow had developed beneath the slab at that location as a result of underpinning operations. See S-1 for its location. The hole and the hollow area is directly beneath the hot water heater and if the floor collapses, the hot water system for this building will be disrupted.

There also is some separation between the first floor structure and the east wall that can be seen in Photos 5 & 6.

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Bricks have also been removed from the east side of the front façade making it vulnerable to leaks. Photo 20.

During rainy days the vertical crack on the south basement wall leaks.

Displacement Gage 1 has shown some further movement since it was installed (1.25 mm). No further movement has been observed on Gage 2.

On the higher floors, most of the cracks in the hallways and stairwells are on the east wall, however in the vestibule, some cracks are on the west wall and in the second floor apartment a crack has developed in the cross wall.

As construction activities progressed above the roof level, the roof of 97 Quentin Rd. building was used to support scaffolding and a number camel back coping stones were broken in the process, the roof of the stair bulkhead was damaged so that it now leaks and the unbroken coping stones were covered with mortar droppings.

# CONCLUSIONS

Cracking of walls has developed in this building that could be attributable to the construction activities and underpinning operations next door.

The most obvious faults are:

- 1. The undermining of the slab next to the east wall in hot water heater area.
- 2. The development of a crack that runs almost parallel to the east wall.
- 3. The separation of the first floor structure and the east wall
- 4. The major crack in the south foundation wall
- 5. The other cracks in the interior public spaces
- 6. The broken coping stones that will lead to water damage of the walls.
- 7. The removal of brick from the front façade at the east face
- 8. Damage to the waterproofing integrity of the stair bulkhead.

These faults should be repaired as soon as possible before they progress and create an inhabitable situation.